

LAKE: COX P (VLMP 31)
TOWN: SOUTH BERWICK
COUNTY: YORK

MIDAS: 9875
TRUE BASIN: 1
SAMPLE STATION: 1

WHOLE LAKE INFORMATION

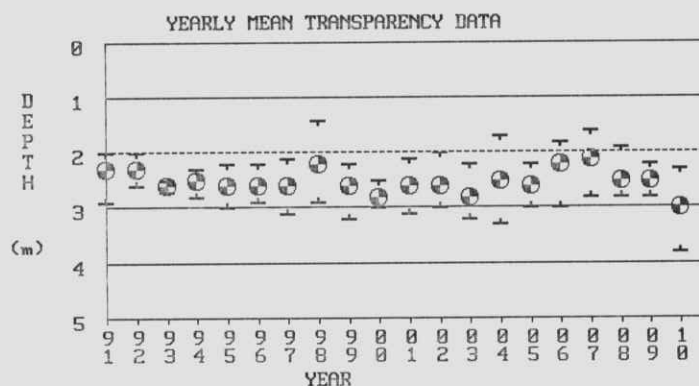
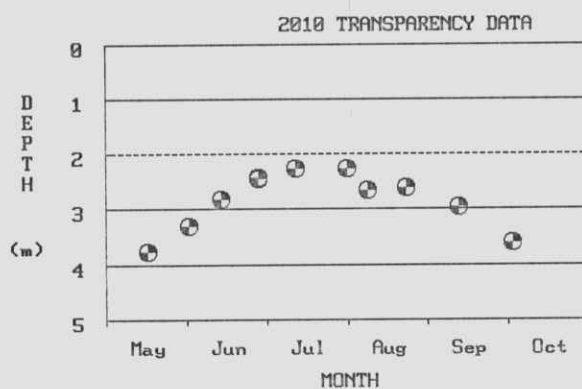
MAX. DEPTH: 5 m. (16 ft.)
MEAN DEPTH: 3 m. (9 ft.)
DELORME ATLAS #: 01
USGS QUAD: DOVER EAST
IFW REGION A: Sebago Lake (Gray)
IFW FISH. MANAGMENT: Warmwater

TRUE BASIN CHARACTERISTICS

SURFACE AREA: 3.0 ha. (7.4 a.)
FLUSHING RATE: 12.64 flushes/yr.
VOLUME: 92627.0 cu. m. (75 ac.-ft.)
DIRECT DRAINAGE AREA: 2.28 sq. km. (0.88 sq. mi.)

PLEASE NOTE THE FOLLOWING: The SAMPLE STATION # refers to the location sampled. The term TRUE BASIN is used to define areas within a lake that are separated by shallow reefs or shoals and therefore function as separate lakes. There are approximately 50 lakes in the state that have more than 1 True Basin. True Basin Characteristics are now being included in the first section of these reports to enable users of the Phosphorous Loading Methodology to better evaluate the data. If there is no data for a particular True Basin, True Basin Characteristics must be obtained from the DEP. COX P has 1 True Basin(s).

SECCHI DISK TRANSPARENCY GRAPHS:



Note: 2010 graphs may indicate multiple readings taken on a given day.

SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

[* indicates that Secchi disk was visible at bottom of lake (or one reading used in calculation was visible)].

YEAR	MEAN	MEAN	MEAN	MEAN	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPHIC STATE INDICES			
	COLOR	pH	ALK	COND.															
	(SPU)		(mg/l)	(uS	EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C	G	SEC	CHL
1991	80	6.16	15.0	39	23	-	-	-	2.0	2.3	2.9	5	9.2	9.2	9.2	-	-	-	-
1992	-	-	-	-	-	-	-	-	2.0	2.3	2.6	4	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	2.5	2.6	2.7	2	-	-	-	-	-	-	-
1994	8	-	4.5	-	12	-	14	-	2.3	2.5	2.8	6	6.2	6.2	6.2	-	-	-	-
1995	-	-	-	-	24	-	-	-	2.2	2.6	3.0	6	-	-	-	-	-	-	-
1996	60	-	45.0	50	15	11	22	-	2.2	2.6	2.9	6	4.2	5.9	7.5	-	-	-	-
1997	-	-	-	-	-	-	-	-	2.1	2.6	3.1	6	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	1.4	2.2	2.9	7	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	2.2	2.6	3.2	6	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	2.5	2.8	3.0	6	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	2.1	2.6	3.1	6	-	-	-	-	-	-	-
2002	87	-	9.5	99	17	-	16	-	2.0	2.6	3.0	5	8.0	8.0	8.0	-	-	-	-
2003	-	-	-	-	-	-	-	-	2.2	2.8	3.2	5	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	1.7	2.5	3.3	5	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	2.2	2.6	3.0	3	-	-	-	-	-	-	-

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YEAR	MEAN	MEAN	MEAN	MEAN	TOTAL PHOS. MEANS (ppb)				SECCHI DISK (m.)				CHLOROPHYLL A(ppb)			TROPIC STATE INDICES			
	COLOR	pH	ALK	COND.	EPI	SURF	BOT.	PRO.	MIN.	MEAN	MAX.	N	MIN.	MEAN	MAX.	C	G	SEC	CHL
	(SPU)		(mg/l)	(uS															
2006	-	-	-	-	-	-	-	-	1.8	2.2	3.0	5	-	-	-	-	-	-	-
2007	100	6.74	6.6	91	-	36	-	-	1.6	2.1	2.8	5	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	1.9	2.5	2.8	4	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	2.2	2.5	2.8	5	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	2.3	3.0	3.8	6	-	-	-	-	-	-	-
MARY:	67	6.36	16.1	70	18	24	17	-	1.4	2.5	3.8	20	4.2	7.3	9.2	-	-	-	-

[illegible]

WATER QUALITY SUMMARY

COX POND, South Berwick

Midas: 9875, Station: 01 - Primary

The Maine Department of Environmental Protection (ME-DEP) and the Volunteer Lake Monitoring Program (VLMP) have collaborated in the collection of lake data to evaluate water quality, track algal blooms, and determine water quality trends. This dataset does not include bacteria, mercury, or nutrients other than phosphorus.

Water quality monitoring information for Cox Pond has been gathered since 1991. During this period, five years of basic chemical information was collected in addition to Secchi Disk Transparencies (SDT). In summary, the water quality of Cox Pond is considered below average based on measures of SDT, total phosphorus (TP) and Chlorophyll-a (Chla). The potential for nuisance algal blooms on Cox Pond is moderate to high.

Water Quality Measures: Cox Pond is a colored lake (average color 59 SPU) with an average SDT of 2.5 m (8.2 ft). The range of water column TP for Cox Pond is 12 - 24 parts per billion (ppb) with an average of 18 ppb. Chla ranges from 4.2 - 9.2 ppb with an average of 7.3 ppb. The most recent dissolved oxygen (DO) profile taken in 2002 shows high DO depletion in deeper areas of the lake. The potential for phosphorus to leave the bottom sediments and become available to algae in the water column (internal loading) is high.

Cox Pond is highly colored and thus has a natural tendency toward lower water clarity. However, despite its high color, which may inhibit algal growth, and its high flushing rate the pond also has high phosphorus and several high chlorophyll readings suggesting that it occasionally produces a lot of algae. Cox Pond's small size allows the pond to thermally stratify in the summer. This results in low oxygen conditions and probable internal phosphorus release from its sediment.

See ME-DEP Explanation of Lake Water Quality Monitoring Report for measured variable explanations. Additional lake information can be found on the Internet at <http://www.lakesofmaine.org/> and/or <http://www.maine.gov/dep/blwq/lake.htm>, or telephone the ME-DEP at 207-287-3901 or the VLMP at 207-783-7733.

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